

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021499**Date Inspected:** 07-Mar-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Segments**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

OBG Trial Assembly Yard

Segment 12BW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) joint. The Weld joint is designated DP3056-001-021, Longitudinal Diaphragm to Deck Plate hold back weld.

The welder is identified as #046709 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

Segment 12CW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) joint. The Weld joint is designated DP3067-001-009, Longitudinal Diaphragm to Deck Plate hold back weld.

The welder is identified as #046709 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

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This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a UT repair on a Complete Joint Penetration (CJP) joint. The Weld joint is designated SEG3005A-003, Side Plate to Bottom Plate hold back weld. The welder is identified as #046709 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G (4F)-FCM-repair-1, for CWR2849-R1.

### Segment 12AW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet joint. The Weld joint is designated SP3049-001-011, 012, Side Plate I rib hold back weld. The welder is identified as #057333 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-P-2112-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) joint. The Weld joint is designated SEG3004M-110, FL3 web to Deck Plate hold back weld. The welder is identified as #067752 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) joint. The Weld joint is designated SEG3004E-122, FL3 web to Deck Plate hold back weld. The welder is identified as #068764 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

### Segment 12AE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) joint. The Weld joint is designated SEG3001D-123, FL3 web to Deck Plate hold back weld. The welder is identified as #044504 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

### Cross Beam 17

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) joint. The Weld joint is designated CB3001A-017-013, Side Panel to Deck Panel hold back weld. The welder is identified as #067752 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) joint. The Weld joint is designated CB3001A-017-001, Side Panel to Deck Panel hold back weld. The welder is identified as #068764 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) joint. The Weld joint is designated CB3001A-017-003, Side Panel to Deck Panel hold back weld. The welder is identified as #044504 and was observed welding in the 4G (overhead) position using approved Welding

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Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

For the above mentioned welding activities ZPMC Quality Control (QC) Inspectors are identified as LI Yang and Zhou Peng. The welding variables recorded by QC appeared to comply with the Applicable WPS.

## Segment 12BW/12CW

This QA Inspector observed ABF personnel performing Magnetic Particle Testing on the Bottom Plate transverse splice.

## Segment 12AW

This QA Inspector observed ABF personnel performing Magnetic Particle Testing on the root pass of the FL3 Web to Deck Plate hold back CJP weld at panel point 112.

## Segment 12AE

This QA Inspector observed ABF personnel performing Magnetic Particle Testing on the root pass of the FL3 Web to Deck Plate hold back CJP weld at panel point 112.

## Cross Beam 17

This QA Inspector observed ABF personnel performing Magnetic Particle Testing on the root pass of the Side Panel to Deck Panel hold back CJP weld at panel point 112.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



## Summary of Conversations:

No relevant conversations.

## Comments

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This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372 , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Hernandez,Dan	Quality Assurance Inspector
<b>Reviewed By:</b>	Miller,Mark	QA Reviewer

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